<u>WHAT IS CLAIMED IS</u>:

1.   A method for detecting a plurality of different pathogens in a milk sample of a mammal, comprising:

exposing said milk sample to a plurality of different antibodies specific to an antigen from a pathogen of said mammal; and

identifying whether said specific antibodies bind to one or more of said antigens, wherein said antigens are from a plurality of different pathogens.

2.   The method of Claim 1 wherein the milk sample is allowed to settle into two phases before exposing and wherein the top "clear" phase is exposed.

3.   The method of Claim 1 wherein the milk sample is diluted before exposing.

4.   The method of Claim 1 wherein the cream is removed from the top of the milk before exposing.

5.   The method of Claim 1 wherein said milk sample is treated to remove at least about 50% of the fat and/or the casein.

6.   The method of Claim 5 wherein said treatment comprises adding a detergent to remove the fat globules and precipitating the casein with acid.

7.   The method of Claim 1 wherein said antibodies are specific for a pathogen selected from the group consisting of a bacteria, a virus, and a fungus.

8.   The method of Claim 1 wherein said milk-producing animal is a cow, a sheep or a goat.

9.   The method of Claim 7 wherein said pathogen is a bacteria selected from the group consisting of: *Streptococcus spp.*, *Enterococcus spp.*, *Staphylococcus spp.*, *Micrococcus spp.*, *Escherischia coli*, *Klebsiella spp.* *Enterobacteria*, *Serratia spp.*, *Pseudomonas spp.*, *Proteus spp.*, *Pasteurella spp.*, *Corynebacterium bovis*, *Arcanobacterium pyogenes*, *Mycobacterium spp.*, *Bacillus spp.*, and *Mycoplasma spp.*

10.   The method of Claim 7 wherein said pathogen is a yeast or a mold selected from the group consisting of: *Nocardia spp.* and *Prototheca*.

11.   The method of Claim 7 wherein said pathogen is selected from the group consisting of: *S. agalactiae, S. dysgalactiae,* and *S.uberis.*

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12. The method of Claim 7 wherein said pathogen is *Staphylococcus aureus*.

13. The method of Claim 7 wherein said pathogen is *a. coagulase-negative Staphylococcus*.

14. The method of Claim 7 wherein said mycoplasma is selected from the group consisting of *M. bovis, M.californicum,* and *M.bovigenitaliae*.

15. The method of Claim 1 wherein said antibodies are specific to antigens from at least 3 different pathogens.

16. The method of Claim 1 wherein said antibodies are specific to 7 pathogens.

17. The method of Claim 1 wherein said antibodies are specific to 10 pathogens.

18. The method of Claim 15 wherein said 3 pathogens are *Streptococcus agalactiae, Staphylococcus aureus,* and *Mycoplasma bovis*.

19. The method of Claim 16 wherein said 7 pathogens are *Streptococcus agalactiae, Staphylococcus aureus, Mycoplasma bovis, Escherichia coli, coagulase-negative Staphylococci, M. californicum,* and *M. bovigenitaliae*.

20. The method of Claim 1 wherein said pathogens are selected from the group consisting *Staphylococcus aureus,* non-hemolytic *Staphylococci, Mycoplasma capricolu, M. mycoides* subspecies *mycoides, M. putrefaciens, Mycoplasma agalactiae, M. arginini, M. conjunctivae, M. ovipnuemoniae,* and *Mycoplasma* strain F38.

21. The method of Claim 1 further comprising a lateral flow test format.

22. The method of Claim 1, further comprising:

immobilizing said antibodies on one or more test membranes; and

identifying the presence of the pathogen using a second antibody which is free to move by capillary action within the membrane.

23. The method of Claim 22, wherein said second antibody is conjugated to a marker.

24. The method of Claim 23, wherein said marker is a color-producing agent.

25. The method of Claim 24, wherein said color-producing agent is colloidal gold or a colored latex micro-sphere.

26.   The method of Claim 22, wherein said more than one test membrane is arranged longitudinally side by side.

27.   The method of Claim 22, wherein said method allows concurrent visualization of test results.

28.   The method of Claim 1, wherein said antibodies are polyclonal, monoclonal, or parts thereof.

29.   A kit for the detection of a plurality of pathogens in milk, comprising:

a plurality of antibodies, wherein said antibodies are specific to an antigen from a pathogen of milk, wherein said antigens are from a plurality of pathogens; and

a marker for the binding of said antibodies to said antigen.

30.   The kit of Claim 29, further comprising a container which allows the milk to be collected.

31.   The kit of Claim 29, further comprising cleaning products for the removal of organisms from the outside of a milk-producing organ.

32.   The kit of Claim 29, further comprising at least one antibody specific to antigens from granulocytes.

33.   The kit of Claim 32 wherein said granulocytes are neutrophils.

34.   The method of Claim 1, further comprising identifying the presence of ganulocytes as a general indicator of mastitis.

35.   The method of Claim 34, wherein said identifying comprises exposing said milk sample to at least one antibody specific to antigens from neutrophils.